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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/909,748	07/20/2001	Timothy David Forrester	UTL00085	2517

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EXAMINER	
CONTEE, JOY KIMBERLY	
ART UNIT	**PAPER NUMBER**
2686	

DATE MAILED: 08/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/909,748	FORRESTER	
	Examiner	Art Unit	
	Joy K Contee	2686	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 May 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *19-32* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *19-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 5/25/05 have been fully considered but they are not persuasive.

Applicant primarily argues that Examiner has "misread and misapplied Sutton '931. Examiner respectively traverses this account.

i. Applicant suggests that Sutton does not disclose Applicant's claimed "processor coupled to a first antenna circuit and a second antenna circuit." Examiner disagrees.

Sutton clearly states that the control commands generated on lines 72 and 74 selectably interconnect any of the transducer ports 52,54 and 56 to any of the RF parts 44 and 46. Further, Sutton suggests that any desired combination of connections between the antenna transducer ports and the RF parts of the radio circuitry are possible depending on the states defined by values of the control commands generated on lines 72 and 74 (col. 6,lnes 30-54). Hence Examiner contends that Sutton meets "a processor coupled to the first antenna circuit and to the second antenna circuit the processor configured to: operate the first antenna circuit to receive a first communication signal employing a first communication system mode; monitor a second communication signal via the second communication antenna circuit, the second communication employing a second communication system mode different from the first communication system mode.

ii. Applicant argues that Applicant's processor is different from the Sutton switch. Examiner contends that Sutton's switch assembly as it is coupled to the mobile station controller and RF ports and antenna transducers, as stated above, anticipates Applicant's claimed processor configured to at least "operate the first antenna circuit...". Sutton's switch assembly operates depending on logic states defined in the mobile station controller by lines 72 and 74. This process indicates the mode of operation for the mobile (i.e., PCS frequency band or the cellular band frequency), hence the antenna transducers (i.e., first and second antenna circuitry) is caused to be connected to respective RF parts of the radio circuitry, responsive to the logic values. The logic values are determined based on antenna position (i.e., extracted and retracted) which further allows either PCS or cellular-band frequency signals to have an active path (reads on monitor a second communication signal via the second antenna circuit...) (see Fig. 4 and col.7, lines 19-60).

iii. Applicant argues that Sutton's switching is not associated with the first and second antenna circuit. This is not true. The switching is controlled by the controller 76 which is used to achieve any of a desired combinations of connections between the antenna transducer ports and RF parts of the radio circuitry, hence the controller is associated with the first antenna circuit and the second antenna circuit.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 19,20-23,26,28 and 29 are rejected under 35 U.S.C. 102(e) as being anticipated by Sutton et al. (Sutton), U.S. Patent No. 6,600,931.

Regarding claims 19 and 26, Sutton discloses an antenna system (and method for providing reception in) a single wireless communication device comprising:

a first antenna circuit (col. 6,lines 33-37);

a second antenna circuit (col. 6,lines 33-37);

a processor coupled to the first antenna circuit and to the second antenna circuit (reads on switch assembly responsive to input commands generated by mobile station control processor, see col. 6,lines 42-45), the processor configured to:

operate the first antenna circuit to receive a first communication signal employing a first communication system mode (e.g., AMPS based 899 MHz range) (col. 6,lines 8-54);

monitor a second communication signal via the second antenna circuit, the second communication signal employing a second communication system mode (e.g., CDMA at 800 MHz and PCS based at 1.9 GHz range) different from the first communication system mode (col. 6,lines 1-54);

handoff (reads on switch) communication of the wireless communication device to the second communication signal mode based on the first

communication signal and the second communication signal (reads on mode) (col. 7,line 19 to col. 8,line 11).

Regarding claims 20 and 26, Sutton discloses the antenna system and method of claims 19 and 26, respectively, wherein after the hand off, the processor operates the first antenna circuit to receive communication signal employing the second communication system mode (col. 8,lines 12-16).

Regarding claims 22 and 29, Sutton discloses the antenna system of claims 19 and 26,respectively, wherein the first communication signal and the second communication signal are combined for reception (reads on data source sink) (col. 5,lines 27-41 and col. 6,lines 13-20).

Regarding claims 23 and 32, Sutton discloses the antenna system of claims 19 and 26, wherein the first communication system mode operates in a separate frequency band from the second communication system mode (col. 6,lines 8-11).

Regarding claims 21 and 28, Sutton further discloses the method of claims 19 and 26, further comprising operating the second antenna circuit to receive a third communication signal employing the second communication system mode (tri-mode); monitoring a fourth communication signal via the first antenna circuit (reads on switching form tri-mode); handing (reads on switching) off communication of the wireless communication device to the first communication system mode based on the third communication signal and the fourth communication signal (col. 6,lines 1-60).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 24,25,30 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sutton, in view of Burdick et al., (Burdick), U.S. Patent No. 6,424,820.

Regarding claim 24 and 30, Sutton discloses the antenna system of claims 19 and 36, respectively, but fails to disclose wherein the first communication mode comprises a different multiple access arrangement from the second communication system mode.

In a similar field of endeavor, Burdick discloses wherein the first communication mode comprises a different multiple access arrangement from the second communication system mode (col. 51, lines 61-65).

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify Sutton to include multiple access systems for the purpose of utilizing modern wireless communication technologies.

Regarding claims 25 and 31, Sutton discloses the antenna system according to claims 19 and 26, respectively, but fails to disclose wherein the second antenna of the second antenna circuit is disposed approximately orthogonally to the first antenna of the first antenna circuit.

Burdick discloses wherein a second antenna is disposed approximately orthogonally to the first antenna (col. 32, lines 33-43 and col. 34,lines 1-15).

At the time of the invention it would have been obvious to one of ordinary skill in the art to that Sutton would have used orthogonal spacing between the two antennas since it is known in this coupling is known in the art as taught by Burdick.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joy K Contee whose telephone number is 571.272.7906. The examiner can normally be reached on Monday through Friday, 5:30 a.m. to 2:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on 571.272.7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JC

JOY K. CONTEE
PATENT EXAMINER

Temica M. Beamer

TEMICA BEAMER
PRIMARY EXAMINER